

Atty. Docket No. DE920000090US1
(590.160)

REMARKS

In the Office Action dated August 4, 2005, pending Claims 1-14 were rejected and the rejection made final. Of these claims, Claims 1, 12, 13, and 14 are independent claims; the remaining claims are dependent claims. The Office is respectfully requested to reconsider the rejections presented in the outstanding Office Action in light of the following remarks.

Claims 1, 3, 12, and 14 stand rejected under 35 USC § 102(e) as being anticipated by Smith et al. Reconsideration and withdrawal of this rejection is respectfully requested.

As best understood, Smith et al. appears to be directed to managing connections between a plurality of clients and a server. (Col. 1, lines 59-62) In particular, Smith et al. facilitates off-loading the connection management burden from the host CPU to an adapter card interposed between the network and the host bus. (Col. 1, lines 62-65) Smith et al. appears to accomplish this off-loading by including on the adapter card a proxy application and data buffers. (Col. 2, lines 5, 14) As described by Smith et al., this "allows many network connections to be open with clients, while a relatively few bus connections are open to the server." (Col. 2, lines 11-13) The arguments presented in the Amendment dated May 2005 with regards to scaling up to larger environments are equally applicable here. A further clarification of those arguments is presented to more clearly delineate the differences between Smith and the instant invention and explain how Smith does not anticipate all of the limitations of the claimed invention, especially with regards to Claims 1, 3, 12, and 14.

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The independent claims recite both a local memory and a system memory. The local memory resides in the adapter, whereas the system memory resides in the system or host to which the adapter is coupled. There are several references throughout the specification in which the two disparate memories are defined as such. For example, the instant invention states that the computer system (host) comprises, among other components, a system memory 12. (Paragraph 0009) Later in the specification, this system memory 12 is described as embodying the methods of the instant invention as asserted in the claims. (Paragraph 0049) Thus, it is readily apparent that the system memory of Claim 1 resides in the host system.

Claim 1 also states that the local memory associated with the adapter is operated as a cache memory which is relative to the system memory. Further, Claim 1 asserts that along with transmission control information, the system memory stores other information. However, Smith does not teach or suggest a system memory residing in the host computer that is relative to the local memory of the adapter. As asserted in the Office Action, item 123 of Smith is considered both a local memory and a system memory. (Page 2, item 2) Nor does Smith teach or suggest such a system memory that stores transmission control information along with other information. Rather, Smith explicitly asserts a local-memory-only approach in which the adapter manages the connections between clients and the server without any help or backup from the server and the system and local memory are not separate memories. This is in stark contrast to the present invention in which the local memory and the system memory reside on different devices and are relative.

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The present invention uses the local memory as a cache and uses the system memory to hold those work requests which do not fit into the cache. (Paragraph 0036) In accordance with at least one presently preferred embodiment of the invention, all transmission control information – which requires only a small chip area compared to the total request data contained in the queue pair – is available immediately where it is required. The rest of the data which can be sent “through” the host adapter is stored external to the adapter/switching elements because it does not carry any routing/switching information. (Paragraph 0051)

Claim 1 recites, *inter alia*, **operating a local memory being associated with the network coupling adapter as a cache memory relative to a system memory for storing transmission control information, wherein information other than transmission control information is stored in the system memory.** (emphasis added) Claim 12 also recites, *inter alia*, a local memory being operable as a cache memory relative to said interconnected memory.

It is respectfully submitted that Smith et al. clearly falls short of present invention (as defined by the independent claims) in that, *inter alia*, operating a local memory being associated with the network coupling adapter as a cache memory relative to a system (or interconnected) memory for storing transmission control information, wherein information other than transmission control information is stored in the system memory. Accordingly, Applicants respectfully submit that the applied art does not anticipate the present invention because, at the very least, “[a]nticipation requires the disclosure in a single prior art reference of each element of the claim under construction.” *W.L. Gore &*

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Associates, Inc. v. Garlock, 721 F.2d 1540, 1554 (Fed. Cir. 1983); *see also In re Marshall*, 198 U.S.P.Q. 344, 346 (C.C.P.A. 1978).

Claims 2, 4-11 and 13 stand rejected under 35 USC § 103(a) as obvious over Smith et al. in view of Pettey et al. Reconsideration and withdrawal of the present rejections are hereby respectfully requested.

A 35 USC 103(a) rejection requires that the combined cited references provide both the motivation to combine the references and an expectation of success. Not only is there no motivation to combine the references, no expectation of success, but actually combining the references would not produce the claimed invention. Thus, the claimed invention is patentable over the combined references and the state of the art.

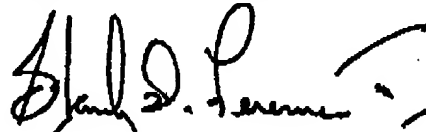
Pettey et al. does not overcome the deficiencies of Smith et al. set forth above. Furthermore, even if there were a motivation for the combination, this combination does not teach or suggest the claimed invention. As best understood, Pettey et al. is directed to an InfiniBand channel adapter that performs direct data transfers between a bus and an InfiniBand link without needing to double-buffer the data in system memory. There is no teaching or suggestion in Pettey et al. to operate a local memory being associated with the network coupling adapter as a cache memory relative to a system memory. Thus, the combination of Pettey et al. with Smith et al. does not teach or suggest the claimed invention, especially with regards to independent Claim 13, which recites, *inter alia*, comprising a local memory being operable as a cache memory relative to said interconnected memory.

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In view of the foregoing, it is respectfully submitted that independent Claims 1, 12, 13, and 14 fully distinguish over the applied art and are thus allowable. By virtue of dependence from Claim 1, it is thus also submitted that Claims 2-11 are also allowable at this juncture.

In summary, it is respectfully submitted that the instant application, including Claims 1-14, is presently in condition for allowance. Notice to the effect is hereby earnestly solicited. If there are any further issues in this application, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,



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